NEW HOLLAND

CRAWLER DOZER

D85B
D95B
TIER 3

REPAIR MANUAL

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3204-Cylinder 5 Warning - Open Load

D95B

Control Module : EDC

IMPORTANT: *When available use special tool 380040185 harness diagnostic/repair kit and 380040188 electro injector test fixture.*

NOTE: *See engine repair manual for electrical schematic information.*

Cause:

1. Injector cable open, load error is detected over 3 camshaft revolutions.
2. Faulty reading from component.
3. Connectors not mated fully, pins not pushed into connector fully, bent pin or broken wire at rear of connector.
4. Wiring or circuits open.
5. Wiring or circuits shorted.

Solution:

1. Find out if the fault code is still active, refer to
   0000 - Retrieving fault codes, Crawlers

   Prior to clearing fault codes write down all fault codes, number of occurrences, and engine hours at last occurrence.

   (1) Turn ignition switch to RUN position to power instrument cluster.

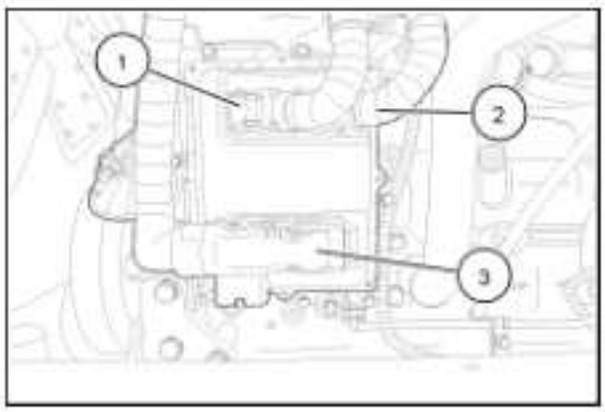
   (2) Clear all fault codes from the cluster.

   (3) To check for fault code: Start and operate machine.

   A. NOT OK – Fault code 3204 is recorded again. Go to Step **2**.

   B. OK – Fault is not recorded again. OK for return to service.

2. Check circuit.



3D07F089-01 1

(1)	Connector C
(2)	Connector A
(3)	Connector E2

(1). Disconnect **Connector A** from engine control module.

(2). Inspect pins 1 and 16 in **Connector A**. Clean connections

(3). Clean female pins by installing and removing.

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Electrical control Safety relay - Testing

NOTE: *For wiring diagram refer to* ***Wiring harness - Electrical schematic frame 04 (A.30.A).***

N°	Test Point	Expected Result	Other Result (Possible Cause)
1	**Condition** Put the master disconnect switch in the ON position. **Check** Terminal 86 for wire 0 to ground.	**Result** Continuity	**Action** Bad ground circuit.
2	**Condition** Put the ignition switch in the RUN position, parking brake control levers in the APPLIED position and the FNR joystick in the NEUTRAL position. **Check** Terminal 85 for wire P (206) to ground.	**Result** 12 volts	**Action** Bad wire P (206) to drivetrain control module, bad drivetrain control module.
3	**Check** Terminal 30 for wire 21 to ground.	**Result** 12 volts	**Action** Bad wire 21 to fuse F3 in connector M2, bad fuse. Bad power relay module A, refer to **Fuse and relay box Relay - Testing Power Relay Modules A and B (A.30.A)** and check power relay modules.
4	**Check** Terminal 87 for wire 21A to ground.	**Result** 12 volts	**Action** Bad safety relay.

Electrical control - Testing Drivetrain Control Module

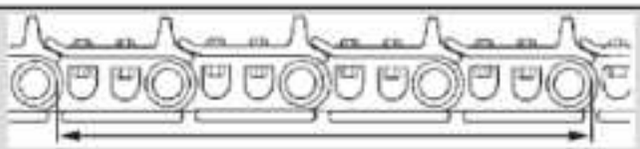
NOTE: *For wiring diagram refer to* ***Wiring harness - Electrical schematic frame 04 (A.30.A)*** *and* ***Wiring harness - Electrical schematic frame 05 (A.30.A).***

N°	Test Point	Expected Result	Other Result (Possible Cause)
1	**Condition** Turn ignition switch and master disconnect OFF, disconnect controller connectors, turn master disconnect ON. **Check** **Connector C1** pins 2 and 28 to ground.	**Result** Continuity	**Action** Bad ground circuit
2	**Condition** Turn the ignition switch ON. **Check** **Connector C1** pins 1 and 27 to ground.	**Result** 12 volts	**Action** Bad fuse F9 in fuse and relay panel, bad wire from controller to fuse block. Also check power relay module A, refer to **Fuse and relay box Relay - Testing Power Relay Modules A and B (A.30.A)**. Check circuit from pins 1 and 27 **Connector C1** to pin 36 **Connector C4**, form pin 36 **Connector M10** to pin 9A **Connector M2**.

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Maximum pressure OTC 180 Metric ton (200 US ton) only	**40 825 kPa (5921 psi)**
Lubricant	**NEW HOLLAND AMBRA HYPOIDE 140 GEAR LUBE**
Track deflection	**38 - 50 mm (1.5 - 2 in)**

Steel track Chain - Dimension



Non lubricated track
170.9mm (6.73 in) pitch

Length measurement		Percent worn
mm	inches	
685.00	26.97	0
685.54	26.99	5
686.05	27.01	10
686.56	27.03	15
687.07	27.05	20
687.58	27.07	25
688.09	27.09	30
688.59	27.11	35
689.10	27.13	40
689.61	27.15	45
690.12	27.17	50
690.63	27.19	54
691.13	27.21	58
691.64	27.23	62
692.15	27.25	66
692.66	27.27	70
693.17	27.29	73
693.67	27.31	76
694.18	27.33	79
694.69	27.35	82
695.20	27.37	85
695.71	27.39	88
696.21	27.41	91
696.72	27.43	94
697.23	27.45	97
697.44	27.47	100
698.25	27.49	103
698.75	27.51	106
699.26	27.53	109
699.77	27.55	112
700.28	27.57	115
700.79	27.59	118
701.29	27.61	121
701.80	27.63	124
It is recommended the pins and bushings be replaced if the wear measurement is 103% or greater. Turn pins and bushings before this point.		

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CHARGING CIRCUIT

CRANKING CIRCUIT AND COLD START

POWER RELAYS

FUSE AND RELAY BLOCK

FUSE BLOCK

BRAKE, DECELERATOR, AND THROTTLE POTENTIOMETER

DRIVE TRAIN CONTROLLER

DRIVE TRAIN CONTROLLER

PUMPS AND MOTORS

FORWARD-NEUTRAL-REVERSE (F-R-N) JOYSTICK AND REVERSE RATIO SWITCH

BRAKES

MENU SWITCHES AND INSTRUMENT CLUSTER

SENDING UNITS

FRONT AND REAR LAMPS

HORN AND BACKUP ALARMS

ENGINE CONTROL UNIT

RADIO

DOME LAMPS

ROPS HEATER AND AIR SUSPENSION SEAT

BLOWER MOTOR

AIR CONDITIONING

WINDSHIELD WIPER SWITCH AND MOTORS

WINDSHIELD WIPER SWITCH AND WASHER

DOOR WIPER SWITCH AND MOTORS

DOOR WIPER SWITCH AND WASHER

DIAGNOSTIC AND FLEET

GROUND CONNECTIONS

COMPONENTS

FRAME - COMPONENT NUMBERS	FRAME - COMPONENT NUMBERS	FRAME - COMPONENT NUMBERS	FRAME - COMPONENT NUMBERS
FRAME 1 COMPONENTS 1 - 1. Batteries 1 - 2. Master Disconnect Switch 1 - 3. Alternator FRAME 2 COMPONENTS 2 - 4. Ignition Switch 2 - 5. Starter Solenoid 2 - 6. Starter 2 - 7. Grid Heater Relay 2 - 7A. Grid Heater Fuse 2 - 7B. Grid Heater FRAME 3 COMPONENTS 3 - 8. Power Relay - Module A 3 - 9. Power Relay - Module B FRAME 4 COMPONENTS 4 - 10. Ignition Relay 4 - 11. Vehicle Safety Relay 4 - 12. Starter Relay 4 - 13. Fleet Relay 4 - 14. Start Sensing Relay 4 - 15. Fuses F1 to F10 FRAME 5 COMPONENTS 5 - 16A. Fuses F11 to F20 5 - 16B. Fuses F1 to F10 FRAME 6 COMPONENTS 6 - 17. Right-Hand Brake Proximity Switch 6 - 18. Not Used 6 - 19. Left-Hand Brake Proximity Switch 6 - 20. Brake Position Sensor 6 - 21. Decelerator Position Sensor 6 - 22. Low Idle Switch 6 - 23. Throttle Position Sensor FRAME 7 COMPONENTS 7 - 24A. Drive Train Controller - Connector C1 FRAME 8 COMPONENTS 8 - 24B. Drive Train Controller - Connector C2	FRAME 9 COMPONENTS 9 - 25. Left-Hand Motor Speed Sensor 9 - 26. Right-Hand Motor Speed Sensor 9 - 27. Left-Hand Hydrostatic Pump 9 - 28. Right-Hand Hydrostatic Pump 9 - 29. Left-Hand Motor Solenoid 9 - 30. Right-Hand Motor Solenoid FRAME 10 COMPONENTS 10 - 31. Reverse Ratio Switch 10 - 32. Forward-Neutral-Reverse (F-N-R) Joystick FRAME 11 COMPONENTS 11 - 33. Brake Pressure Switch 11 - 34. Brake Solenoid FRAME 12 COMPONENTS 12 - 35A. Instrument Cluster A 12 - 35B. Instrument Cluster B 12 - 36. Warning Buzzer 12 - 37. Enter/Escape Switch 12 - 38. Up/Down Switch FRAME 13 COMPONENTS 13 - 39. Air Filter Restriction 13 - 40. Hydrostatic Filter Restriction Switch 13 - 41. Transmission Temperature 13 - 42. Equipment Filter Restriction Switch 13 - 43. Fuel Sending Unit 13 - 44. Transmission Charge Pressure Switch FRAME 14 COMPONENTS 14 - 45. Front Lamp Switch 14 - 46. Rear Lamp Switch 14 - 47. Front Lamps 14 - 48. Front Lamps (Optional) 14 - 49. Rear Lamps FRAME 15 COMPONENTS 15 - 50. Backup Alarm 15 - 51. Horn Switch 15 - 52. Horn FRAME 16 Components 16 - 53. Engine Controller 16 - 54. Water-in-Fuel Sensor	FRAME 17 COMPONENTS 17 - 55. Radio 17 - 56. Right Speaker 17 - 57. Left Speaker FRAME 18 COMPONENTS 18 - 58. Interior Lamp Switch 18 - 59. Interior Lamp FRAME 19 COMPONENTS 19 - 60. Heater - ROPS 19 - 61. Air Suspension Seat FRAME 20 COMPONENTS 20 - 62. Blower Motors 20 - 63. Thermostat 20 - 64. Water Valve 20 - 65. Resistor 20 - 66. Fan Speed Switch 20 - 67. Mode Switch 20 - 68. Temperature Switch FRAME 21 COMPONENTS 21 - 69. Air Conditioner Low Pressure Switch 21 - 70. Air Conditioner High Pressure Switch 21 - 71. Air Conditioner Clutch 21 - 72. Air Conditioner Condenser FRAME 22 COMPONENTS 23 - 73. Front Wiper Motor 23 - 74. Wiper Switch (Front/Rear) 23 - 75. Rear Wiper Motor FRAME 23 COMPONENTS 23 - 76. Washer Switch (Front/Rear) 23 - 77. Washer Pump (Front/Rear) FRAME 24 COMPONENTS 24 - 78. Wiper Motor (Left) 24 - 79. Wiper Switch (Left/Right) 24 - 80. Wiper Motor (Right) FRAME 25 COMPONENTS 25 - 81. Washer Switch (Left/Right) 25 - 82. Washer Pump (Left/Right)	FRAME 26 COMPONENTS 26 - 83. Connector - Diagnostic 26 - 84. 12 Volt Power Socket 26 - 85. Connector - Fleet Tracker FRAME 27 COMPONENTS 27 - 86. P2 - Located in Battery Compartment (Ground contacts in Frames 9, 13, and 15). 27 - 87. M4 - Located behind Console (Ground contacts in Frames 3, 4, 6, 10, 12, 19, 22, 24, and 26.) 27 - 88. L14 - Located top of Cab (Ground contacts in Frames 14, 17, 18, 20, and 21.) 27 - 89. E9 - Located at left-hand rear Engine Mount (Ground contacts in Frames 13, 15, 16, 23, and 25.) 27 - 90. C19 - Located near Drive Train Controller (Ground contacts in Frames 7 and 26.) 27 - 91. C13 - Located near Right-Hand Arm Rest (Ground contacts in Frames 22 and 24.)

ACTUATORS: LEVER, HAND, FOOT, COIL, TEMP, DIODE, PRESSURE, FLOAT LIQUID LEVEL

HOUSINGS: VACUUM SWITCH, PRESSURE SWITCH, LAMP, MOTOR, TEMPERATURE SWITCH

CONTACT CONFIGURATIONS: S.P.S.T., S.P.D.T., D.P.S.T., D.P.D.T.

MISCELLANEOUS SYMBOLS: MOMENTARY CONTACTS, MAINTAINED CONTACTS, VARIABLE RESISTOR, RESISTOR, FUSE, CIRCUIT BREAKER, MALE TERMINAL, FEMALE TERMINAL, COMPONENT NUMBER

SHOWS CIRCUIT SPLICE CONNECTION (SPL-90)

SHOWS CIRCUIT CROSSING NOT CONNECTED

INDICATES EXTERNAL GROUND

INDICATES INTERNALLY GROUNDED COMPONENT

FEMALE CONNECTOR, MALE CONNECTOR, CONNECTOR NUMBER, CONNECTOR IDENTIFICATION, INDICATES PARTIAL CONNECTOR, NOT ALL CONNECTIONS ARE SHOWN

CIRCUIT CONTINUATION

Frame Number and Circuit Number where Circuit continues

CIRCUIT TAGS: FRAME - CIRCUIT

Circuit Number assigned to Circuit in Frame

WIRE IDENTIFICATION

B . . . BLACK
BL . . BLUE
BR . . TAN/BROWN
G . . . GREEN
GY . GREY
LB . . LIGHT BLUE
O . . . ORANGE
P . . . PINK
R . . . RED
V . . . VIOLET/PURPLE
W . . WHITE
Y . . . YELLOW

BL (000)-1.0 — WIRE COLOR, WIRE SIZE, WIRE NUMBER

NOTES

NOTE 1 See the REPAIR MANUAL for locations and Troubleshooting information.

ELECTRICAL SCHEMATIC
D85B and D95B CRAWLER

Additional copies of this Hydraulic and Electrical Schematic can be ordered through Technical Publications Distribution System.
The part number is 5-11890

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